

DERWENT-ACC-NO: 2004-200161

DERWENT-WEEK: 200435

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TITLE: Process with improved etching rate ratio of nitride layer to oxide layer and application thereof - for reducing a loss of the gate oxide layer in the process of forming a space wall

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PRIORITY-DATA: 2002TW-0105783 (March 25, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
TW 544815 A	August 1, 2003	N/A	000	H01L 021/465

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
TW 544815A	N/A	2002TW-0105783	March 25, 2002

INT-CL (IPC): H01L021/465

ABSTRACTED-PUB-NO: TW 544815A

BASIC-ABSTRACT:

NOVELTY - A process with an improved etching rate ratio of nitride layer to oxide layer comprises: providing an etching treatment chamber and a substrate; mounting the substrate in an etching treatment chamber; providing a mixture gas of O₂, N₂ and CF₄; applying a pressure of 30 to 200 Pa and a power of 100 to 1000W on the mixture gas to etch the substrate.

DETAILED DESCRIPTION - A process with an improved etching rate ratio of nitride layer to oxide layer comprises: providing an etching treatment chamber and a substrate; mounting the substrate in an etching treatment chamber, in which the substrate is formed with a nitride layer; providing a mixture gas of O₂, N₂ and CF₄; in which the composition of the mixture gas is O₂:N₂:CF₄=4-50:0-10:1; applying a pressure of 30 to 200 Pa and a power of 100 to 1000W on the mixture gas to etch the substrate.

CHOSEN-DRAWING: Dwg.1/1

TITLE-TERMS: PROCESS IMPROVE ETCH RATE RATIO NITRIDE LAYER OXIDE LAYER APPLY
REDUCE LOSS GATE OXIDE LAYER PROCESS FORMING SPACE WALL

DERWENT-CLASS: L03 U11

CPI-CODES: L04-C07;

EPI-CODES: U11-C05B9B; U11-C07A1; U11-C07C3;

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